

# Inspector General

United States  
Department of Defense



American Recovery and Reinvestment Act Small  
Business Innovation Research Projects in the DoD  
Near Term Energy-Efficient Technologies Program

| Report Documentation Page  |                                    |                                     |   | Form Approved<br>OMB No. 0704-0188                  |                                 |
|--|------------------------------------|-------------------------------------|---|---|---------------------------------|
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| 1. REPORT DATE<br><b>09 JUN 2011</b>   |                                    | 2. REPORT TYPE                      |   | 3. DATES COVERED<br><b>00-00-2011 to 00-00-2011</b> |                                 |
| 4. TITLE AND SUBTITLE<br><b>American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies program</b>  |                                    |                                     |   | 5a. CONTRACT NUMBER                                 |                                 |
|  |                                    |                                     |   | 5b. GRANT NUMBER                                    |                                 |
|  |                                    |                                     |   | 5c. PROGRAM ELEMENT NUMBER                          |                                 |
| 6. AUTHOR(S)   |                                    |                                     |   | 5d. PROJECT NUMBER                                  |                                 |
|  |                                    |                                     |   | 5e. TASK NUMBER                                     |                                 |
|  |                                    |                                     |   | 5f. WORK UNIT NUMBER                                |                                 |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><b>Department of Defense Inspector General, 400 Army Navy Drive, Arlington, VA, 22202-4704</b>   |                                    |                                     |   | 8. PERFORMING ORGANIZATION REPORT NUMBER            |                                 |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)  |                                    |                                     |   | 10. SPONSOR/MONITOR'S ACRONYM(S)                    |                                 |
|  |                                    |                                     |   | 11. SPONSOR/MONITOR'S REPORT NUMBER(S)              |                                 |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT<br><b>Approved for public release; distribution unlimited</b>  |                                    |                                     |   |   |                                 |
| 13. SUPPLEMENTARY NOTES  |                                    |                                     |   |   |                                 |
| 14. ABSTRACT   |                                    |                                     |   |   |                                 |
| 15. SUBJECT TERMS  |                                    |                                     |   |   |                                 |
| 16. SECURITY CLASSIFICATION OF:  |                                    |                                     | 17. LIMITATION OF ABSTRACT<br><b>Same as Report (SAR)</b> | 18. NUMBER OF PAGES<br><b>30</b>                    | 19a. NAME OF RESPONSIBLE PERSON |
| a. REPORT<br><b>unclassified</b>   | b. ABSTRACT<br><b>unclassified</b> | c. THIS PAGE<br><b>unclassified</b> |   |   |                                 |

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## Acronyms and Abbreviations

|                 |   |
|-----------------|---|
| ACC-APG (C4ISR) | Army Contracting Command-Aberdeen Proving Ground<br>(Command, Control, Communications, Computers, Intelligence,<br>Surveillance and Reconnaissance) |
| AFRL            | Air Force Research Laboratory   |
| CECOM           | U.S. Army Communications-Electronics Command  |
| FAR             | Federal Acquisition Regulation  |
| FBO             | Federal Business Opportunities  |
| NTEET           | Near Term Energy Efficient Technologies   |
| OMB             | Office of Management and Budget   |
| ONR             | Office of Naval Research  |
| OUSDC(C)/CFO    | Office of the Under Secretary of Defense (Comptroller)/<br>Chief Financial Officer  |
| RDT&E           | Research, Development, Test, and Evaluation   |
| SBA             | Small Business Administration   |
| SBIR            | Small Business Innovation Research  |





INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-4704

June 09, 2011

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)/  
CHIEF FINANCIAL OFFICER  
ASSISTANT SECRETARY OF THE AIR FORCE  
(FINANCIAL MANAGEMENT AND COMPTROLLER)  
DIRECTOR, DEFENSE RESEARCH AND ENGINEERING  
DIRECTOR, WASHINGTON HEADQUARTERS SERVICES  
NAVAL INSPECTOR GENERAL  
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: American Recovery and Reinvestment Act Small Business Innovation  
Research Projects in the DoD Near Term Energy-Efficient Technologies  
Program (Report No. D-2011-069)

We are providing this report for your information and use. The Navy, Air Force, and Defense-wide Small Business Innovation Research Program personnel properly justified and adequately planned, funded, and contracted for the four Near Term Energy-Efficient Technologies projects we reviewed. However, the Army could have improved contracting and transparency for the two projects we reviewed. We considered management comments on a draft of this report when preparing the final report.

The Army comments conformed to the requirements of DoD Directive 7650.3. As a result of the management comments, we redirected report Recommendations 1 and 2 from the Commander, U.S. Army Communications-Electronics Command, to the Executive Director, U.S. Army Contracting Command, Aberdeen Proving Ground to reflect the command's reorganization. The Army comments were partially responsive to Recommendation 1 and fully responsive to Recommendation 2. No further comments are required for either recommendation.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9071 (DSN 664-9071).

A handwritten signature in black ink, reading "Bruce A. Burton".

Bruce A. Burton  
Deputy Assistant Inspector General  
Acquisition and Contract Management

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# Results in Brief: American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies Program

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## What We Did

We reviewed the planning, funding, and initial execution (contracting) of six Small Business Innovation Research (SBIR) projects in the DoD Near Term Energy-Efficient Technologies (NTEET) program to determine whether the Army, Navy, Air Force, and Defense-wide contracting efforts complied with Recovery Act and other Federal requirements and DoD implementing guidance. As of December 23, 2009, the Army, Navy, and Air Force awarded six contract actions, valued at approximately \$1.9 million, for the six SBIR NTEET projects that we reviewed. Five contracts were new, and the remaining contract action was a modification to an existing SBIR contract.

## What We Found

Navy, Air Force, and Defense-wide program personnel properly justified and adequately planned, funded, and contracted for four SBIR NTEET projects. The U.S. Army Contracting Command-Aberdeen Proving Ground (C4ISR) (ACC-APG [C4ISR]; hereafter ACC-APG) properly planned and funded two projects. However, the ACC-APG could have improved contracting and transparency by

- posting presolicitation or award notices for two contracts,
- describing the work to be performed for two contracts, and
- including required Federal Acquisition Regulation (FAR) Recovery Act contract clauses in one contract.

This occurred because of a lack of contracting office oversight, including lack of awareness that Recovery Act requirements extended to SBIR projects.

## What We Recommend

We recommend that the Executive Director, ACC-APG, direct the posting of award notices that include adequate project description for two contracts and direct the modification of one contract to include all required FAR Recovery Act clauses.

## Management Comments and Our Response

The Army comments were partially responsive to the recommendation for posting of award notices and fully responsive to the recommendation for adding a contract clause. However, because the period of performance for the two contracts were completed and the contract results were posted to [FederalReporting.gov](http://FederalReporting.gov), we see no reason to pursue further posting of the two award announcements or modification of one of the two contracts to include all required FAR Recovery Act clauses. Thus, no further management comments are required.

## Recommendations Table

| Management   | Recommendation<br>Requiring Comment | No Additional Comments<br>Required |
|--|-------------------------------------|------------------------------------|
| Executive Director, U.S. Army<br>Contracting Center-Aberdeen<br>Proving Ground |                                     | 1, 2                               |

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# Introduction

## Objective

The primary objective of the audit was to determine whether DoD and its Components were planning and implementing the American Recovery and Reinvestment Act of 2009 (Recovery Act) by meeting the requirements in the Recovery Act; Office of Management and Budget (OMB) Memorandum M-09-10, “Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” February 18, 2009; and subsequent related guidance. For this audit, we reviewed the planning, funding, and initial execution (contracting) of six Small Business Innovation Research (SBIR) projects in the DoD Near Term Energy-Efficient Technologies (NTEET) Program to determine whether the Army, Navy, Air Force, and Defense-wide contracting efforts complied with Recovery Act requirements, OMB guidance, the Federal Acquisition Regulation (FAR), and DoD implementing guidance. See Appendix A for a discussion of our scope and methodology.

## Recovery Act Background

The President signed the Recovery Act into law on February 17, 2009. It is an unprecedented effort to jump-start the economy and create or save jobs.

The purposes of this Act include the following:

- (1) To preserve and create jobs and promote economic recovery.
- (2) To assist those most impacted by the recession.
- (3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health.
- (4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.
- (5) To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

... the heads of Federal departments and agencies shall manage and expend the funds made available in this Act so as to achieve the purposes specified ... including commencing expenditures and activities as quickly as possible consistent with prudent management..

## Recovery Act Requirements

The Recovery Act and implementing OMB guidance require projects to be monitored and reviewed. We grouped these requirements into the following four phases: (1) planning, (2) funding, (3) initial execution, and (4) tracking and reporting. The Recovery Act requires that projects be properly planned to ensure the appropriate use of funds. Review of the funding phase is to ensure the funds were distributed in a prompt, fair, and reasonable manner. Review of the initial execution phase is to ensure that contracts awarded with Recovery Act funds were transparent, competed, and contained specific FAR clauses; that Recovery Act funds were used for authorized purposes; and that instances of fraud, waste, error, and abuse were mitigated. Review of the execution phase also ensures that program goals were achieved, including specific program outcomes and improved results on broader economic indicators; and that projects funded avoided

unnecessary delays and cost overruns. Review of the tracking and reporting phase ensures that the recipients' use of funds was transparent to the public and that benefits of the funds were clearly, accurately, and timely reported.

## **Recovery Act Contracting Requirements**

The Recovery Act establishes transparency and accountability requirements. Federal Acquisition Circular 2005-32, March 31, 2009, provides policies and procedures for the Government-wide implementation of the Recovery Act and guidance on special contract provisions. Federal Acquisition Circular 2005-32 amended the FAR and provided interim rules that made FAR solicitation provisions and contract clauses immediately available for inclusion in contracts for Recovery Act work.

The specific FAR Recovery Act requirements are for:

- buying American construction material,<sup>1</sup>
- protecting contractor whistleblowers,
- publicizing contract actions,
- reporting, and
- giving the Government Accountability Office and agency Inspectors General access to contracting records.

Federal Government organizations meet requirements for Recovery Act contract actions by posting information on the Federal Business Opportunities (FBO) and Federal Procurement Data System (FPDS) Web sites. FAR Subpart 5.7, "Publicizing Requirements Under the American Recovery and Reinvestment Act of 2009," directs contracting officers to use the Government-wide FBO Web site (<http://www.fbo.gov>) to:

- identify the action as funded by the Recovery Act,
- post pre-award notices for orders exceeding \$25,000,
- describe supplies in a clear narrative to the general public, and
- provide the rationale for awarding any contracting actions that were not both fixed-price and competitive.

FBO is the Federal Government's central source of Federal procurement opportunities. FBO is a Web-based portal that allows agency officials to post Federal procurement opportunities and contractors to search and review those opportunities. Agencies also post contract award notices on FBO. In addition, to provide transparency, FBO has a separate section identifying Recovery Act opportunities and awards.

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<sup>1</sup> FAR 25.6, "American Recovery and Reinvestment Act–Buy American Act–Construction Materials," is not applicable to Recovery Act NTEET projects because these projects are research and development, not construction.

FPDS is the Federal Government’s central source of procurement information. Contracting officers enter information, to include the Treasury Account Symbol, in the FPDS for all Recovery Act contract actions. The Treasury Account Symbol enables FPDS to provide transparency by generating and posting a report containing all Recovery Act contract actions.

## OMB Recovery Act Guidance

Criteria for planning and implementing the Recovery Act continue to change as OMB issues additional guidance and DoD and the Components issue their implementation guidance. OMB has issued 12 memoranda and 1 bulletin to address the implementation of the Recovery Act. See Appendix B for Recovery Act criteria and guidance.

## DoD Recovery Act Program Plans

Under the Recovery Act, Congress appropriated approximately \$12 billion to DoD for the following programs: Energy Conservation Investment; Facilities Sustainment, Restoration, and Modernization (FSRM); Homeowners Assistance; Military Construction; NTEET; and U.S. Army Corps of Engineers Civil Works. The Recovery Act divides the approximately \$12 billion among 32 DoD and U.S. Army Corps of Engineers line items of appropriations.

**Table 1. DoD Agency-Wide and Program-Specific Recovery Act Programs**

| <b>Program</b>   | <b>Amount<br/>(in millions)</b> |
|--|---------------------------------|
| Energy Conservation Investment                         | \$120                           |
| Facilities Sustainment, Restoration, and Modernization | 4,260*                          |
| Homeowners Assistance                                  | 555                             |
| Military Construction                                  | 2,185                           |
| Near Term Energy-Efficient Technologies                | 300                             |
| U.S. Army Corps of Engineers Civil Works               | 4,600                           |
| <b>Total</b>   | <b>\$12,020*</b>                |

\*On August 10, 2010, Public Law 111-226, Title III, “Rescissions,” rescinded \$260.5 million of funds from DoD Operations and Maintenance Accounts and Defense Health Program Account supporting the Recovery Act. This reduced the DoD Recovery Act FSRM amounts to approximately \$4 billion and total DoD Agency-wide and Program-Specific Recovery Act program funding to approximately \$11.76 billion.

## DoD NTEET Program Planning

Under the Recovery Act, Congress appropriated \$300 million for DoD Research, Development, Test, and Evaluation (RDT&E) in four accounts of \$75 million each for the Army, Navy, Air Force, and Defense-wide NTEET Recovery Act programs. Each recipient of the \$75 million was required to set-aside 2.8 percent (\$2.1 million) to fund the SBIR NTEET Recovery Act projects.

## ***Research and Development Contracting***

The primary purpose of contracted research and development programs is to advance scientific and technical knowledge and apply that knowledge to achieve agency and national goals. Unlike contracts for other services and supplies, most research and development contracts contain objectives for which the work or method cannot be precisely described in advance. Although the Government prefers to use fixed-price contracts, they do not usually apply to research and development contracting, where specifications and cost estimates are usually not precise enough to permit a fixed-price preference. Therefore, the DoD NTEET Program Plan, May 15, 2009, forecasted a smaller percentage of fixed-price contract actions for anticipated Recovery Act NTEET program projects than for other Recovery Act project categories.

## ***Small Business Innovation Research Program***

The SBIR Program was established under Public Law 97-219, “Small Business Innovation Development Act of 1982,” July 22, 1982, and reauthorized through May 31, 2011, by Public Law 112-1, Title I, “Small Business Reauthorization Act of 1958,” January 31, 2011. The U.S. Small Business Administration (SBA) is the coordinating agency for the SBIR Program. The SBA maintains overall Federal policy for SBIR and directs 11 Federal agencies’<sup>2</sup> implementation of SBIR, reviews their progress, and reports annually to Congress on the program’s operation. As required by public law, the SBA is responsible for ensuring that the 11 Federal agencies reserve a portion of their overall research and development extramural budget for award to small businesses.

## **Review of Internal Controls**

We determined that an internal control weakness over contracting and initial execution of two Recovery Act contracts at Aberdeen Proving Ground existed as defined by DOD Instruction 5010.40, “Managers’ Internal Control Program (MICP) Procedures,” July 29, 2010. We will provide a copy of the final report to the senior official responsible for internal controls at the U. S. Army Contracting Command-Aberdeen Proving Ground (C4ISR) (ACC-APG [C4ISR]; hereafter ACC-APG).

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<sup>2</sup> The 11 Federal agencies participating in the SBIR program are the Department of Agriculture, Department of Commerce, Department of Defense, Department of Education, Department of Energy, Department of Health and Human Services, Department of Homeland Security, Department of Transportation, Environmental Protection Agency, National Aeronautics and Space Administration, and the National Science Foundation.

## **Finding. Army SBIR NTEET Program Implementation Needs Improvement**

Navy, Air Force, and Defense-wide program personnel properly justified and adequately planned, funded, and contracted for four SBIR NTEET projects. The ACC-APG properly planned and funded two projects. However, the ACC-APG could have improved contracting and transparency for projects by

- posting presolicitation or award notices,
- including required FAR Recovery Act contract clauses, and
- describing the work to be performed.

ACC-APG contracting personnel did not post presolicitations or award notices, include required FAR Recovery Act clauses in the contracts, or describe the work to be performed in the presolicitation or award notice posted on FBO Web site because of a lack of contracting office oversight. The FAR Recovery Act clauses were absent because contracting officials were unaware that Recovery Act funded contracts required the clauses. Inclusion of all applicable Recovery Act clauses in contracts informs contractors about reporting requirements and promotes compliance. As a result, the Army SBIR projects did not achieve transparency, which was a primary objective of the Recovery Act.

### **Army, Navy, and Air Force Properly Planned Projects**

The Army, Navy, and Air Force adequately and properly planned the six SBIR NTEET projects reviewed.

### ***SBIR Program Process***

The SBIR program is a phased process, which is uniform throughout the Federal Government for research and development. Each Federal agency with a research and development budget of \$100 million or more must participate in the SBIR program.

The SBIR contractual process is structured into the following three phases:

- Phase I: initial determination of technical feasibility,
- Phase II: prototype development, and
- Phase III: commercialization of the technology in either the military or private-sector markets.

The “Small Business Innovation Research Program Policy Directive,” September 24, 2002 (the SBA Policy Directive) notes that Phase I allows small businesses to bid on early-stage research and development solicitations to determine initial approaches to specific DoD requirements. Phase II contracts further develop the research and development efforts and, in many cases, require delivery of a prototype.



Small businesses may submit Phase II proposals only by Government invitation. The commercial potential of Phase II proposals is an evaluation factor for award.

A program solicitation for proposals is used to formally notify the public of an agency's research needs and interests. DoD issues one Small Business Technology Transfer and three SBIR solicitation lists each year, which contain all the research topics available to candidates to obtain SBIR Phase I contracts.

### ***SBIR Project Planning and Recovery Act Funding***

DoD SBIR Program officials planned and funded 22 NTEET projects using the \$8.4 million set aside from the Recovery Act appropriation. SBIR personnel chose topics from previous SBIR solicitation lists to meet the timeliness intent of Recovery Act guidance.

We reviewed six of the projects, valued at approximately \$1.9 million. The six projects were at Aberdeen Proving Ground (APG), Aberdeen, Maryland; the Office of Naval Research (ONR), Arlington, Virginia; and the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Dayton, Ohio. See Table 2 for the topics and values of the projects.

**Table 2. SBIR NTEET Projects Reviewed**

| Topic  | Command/<br>Headquarters | Topic<br>Number | Amount             |
|--|--------------------------|-----------------|--------------------|
| Light Weight 1.5-Ton Ammonia Absorption Refrigeration Unit                                       | APG                      | A09-090         | \$69,975           |
| Heat Actuated Cooling System   | APG                      | A09-090         | 67,730             |
| Desulphurization of Logistic JP-5 Jet Fuel for Enhanced Fuel Cell Operations                     | ONR                      | N06-152         | 299,969            |
| Advanced Manufacturing Techniques for High-Efficiency Functional Gradient Solid Oxide Fuel Cells | AFRL                     | AF06-74         | 622,896            |
| High-Temperature Blower Development for Solid Oxide Fuel Cell Applications                       | AFRL <sup>1</sup>        | OSD08-EP3       | 480,000            |
| Efficient Thermal Energy Storage for Mega-Joule Class Weapon Systems                             | AFRL <sup>1</sup>        | OSD08-EP1       | 330,000            |
| <b>Total</b>   |                          |                 | <b>\$1,870,570</b> |

<sup>1</sup>Defense-wide projects were contracted through the AFRL.

### **Military Departments and Defense Agencies Promptly Distributed NTEET Program Funding**

The Army, Navy, and Air Force properly and fairly distributed Recovery Act funds, meeting the Recovery Act goals for the SBIR NTEET projects. On March 10, 2009, the Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer (OUSD[C]/CFO) released funds totaling \$225 million, appropriated in the Recovery Act, to the Assistant Secretaries (Financial Management and Comptroller) of the Army, Navy, and Air Force. The OUSD(C)/CFO released the remaining \$75 million of Recovery Act funds for Defense agencies, which funded the Defense-wide NTEET projects contracted

through the AFRL, to the Directors of the Defense Logistics Agency and the Washington Headquarters Services.

On April 24, 2009, the Assistant Secretary of the Army (Financial Management and Comptroller) used a funding authorization document to transfer \$2.1 million to fund all nine of the Army SBIR NTEET projects. On April 16, 2009, the Comptroller, Office of Naval Research, appropriated \$2.1 million to finance all six Navy SBIR NTEET projects. On May 13, 2009, the Assistant Secretary of the Air Force/Financial Management & Budget transferred \$2.1 million to fund all four Air Force SBIR NTEET projects. On June 9, 2009, the Director, Budget and Finance, Washington Headquarters Services, used a funding authorization document to transfer \$1.7 million to AFRL to fund all three Defense-wide SBIR NTEET projects.<sup>3</sup>

## Navy and Air Force Properly Contracted Projects

*The language in the presolicitation notices met the intent of the Recovery Act, which was to facilitate transparency by notifying contractors and the public of business opportunities.*

The Navy and Air Force properly contracted the four projects that we reviewed. The language in the presolicitation notices met the intent of the Recovery Act, which was to facilitate transparency by notifying contractors and the public of business opportunities. The synopses in the presolicitation notices clearly explained the nature of the work and informed the public that the award was made to a small business. The synopses in the award notices explained that a cost-reimbursement

contract was used because of existing uncertainties that prevented costs from being accurately estimated. All contracts contained the required FAR clauses for Recovery Act projects.

On September 29, 2008, ONR contracting personnel awarded contract N00014-08-C-0232, valued at \$449,990, with two options. ONR modified the contract on October 29, 2009, exercising Option I, which added \$299,969 of Recovery Act funds. ONR contracting personnel posted the presolicitation notice for the Navy contract on the FBO Web site on February 25, 2010. Also on February 25, 2010, the contracting office posted contract award N00014-08-C-0232 as a cost-plus-fixed-fee contract on the FBO Web site.

On May 15, 2009, AFRL contracting personnel posted the presolicitation notice for contract FA8650-09-C-2016 on the FBO Web site. On July 27, 2009, AFRL contracting personnel awarded contract FA8650-09-C-2016 as a Phase II cost-reimbursement contract, valued at \$622,896, and the award was posted on the FBO Web site on July 28, 2009.

We reviewed two Defense-wide SBIR NTEET projects placed through the AFRL and determined that AFRL personnel properly solicited and awarded the contracts.

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<sup>3</sup> The Defense Logistics Agency did not fund any of the Defense-wide SBIR NTEET projects.

- Contract FA8650-09-C-2043 – On September 30, 2009, AFRL contracting personnel awarded contract FA8650-09-C-2043 for a total of \$749,990, of which \$480,000 was Recovery Act funding. On June 22, 2009, AFRL contracting personnel posted the presolicitation notice. The contract was awarded as a Phase II cost-plus-fixed-fee contract, and the award was posted on the FBO Web site on October 1, 2009.
- Contract FA8650-10-C-2040 – On October 1, 2009, AFRL contracting personnel awarded contract FA8650-10-C-2040 for a total of \$749,960, of which \$330,000 was Recovery Act funding. On June 22, 2009, AFRL contracting personnel posted the presolicitation notice. The contract was awarded as a Phase II cost-plus-fixed-fee contract, and the award was posted on the FBO Web site on October 15, 2009.

## **Army ACC-APG Needs to Improve Transparency of SBIR NTEET Contracting**

Public awareness was not achieved in the two Army SBIR project contracts or the solicitations that we reviewed. The problems included lack of public notification of contracts solicited and awarded, no description of the work to be performed in the contracts, and a missing Recovery Act clause in the solicitation and award of one contract.

### ***Public Awareness Was Not Achieved***

For contracts W15P7T-10-C-C204 and W15P7T-09-C-S039, ACC-APG contracting officials did not post a presolicitation, award notice, or adequate project description on the FBO Web site because they did not think that the Recovery Act requirement extended to SBIR projects. According to FAR subpart 5.7, the presolicitation notifications must be posted. Because they were not posted, contractors and the public were not aware of potential business opportunities. ACC-APG contracting personnel did not post adequate project descriptions on the FBO Web site, as directed by FAR Subpart 5.2, “Synopsis of Proposed Contract Actions.” Therefore, the public was not given a clear understanding of the purpose of the contracts in support of the project.

### ***Recovery Act Contract Clause Was Missing***

ACC-APG personnel should have included a FAR-required Recovery Act clause for one of the contracts reviewed. Contract W15P7T-10-C-C204 did not contain required FAR clause 52.215.02, “Audit and Records-Negotiation.” We suggested that the Army SBIR program manager make the necessary corrections to postings for contracts W15P7T-10-C-C204 and W15P7T-09-C-S039, since both Army NTEET postings were noncompliant with regard to including an adequate project description and that the FAR clause should be added to contract W15P7T-10-C-C204. However, the Army SBIR program manager did not respond to our suggestions. ACC-APG contracting officials did not provide any explanation for omitting the required clause. As a result, the contractors were not informed about this reporting requirement, which would have promoted compliance.

## **Management Comments on the Report and Our Response**

The Executive Director, U.S. Army Contracting Command, recommended that we revise the final report to include the name U. S. Army Contracting Command-Aberdeen Proving Ground (ACC-APG) rather than U. S. Army Communications-Electronics Command (CECOM).

### ***Our Response***

We revised the final report discussion and associated recommendations to note that ACC-APG was reorganized from CECOM.

## **Management Comments on Recommendations and Our Response**

As a result of management comments, we redirected report Recommendations 1 and 2 from the Commander, CECOM, to the Executive Director, ACC-APG.

## **Recommendations**

**We recommend that the Executive Director, U.S. Army Contracting Command-Aberdeen Proving Ground:**

**1. Direct the posting of award notices that include adequate project description for contracts W15P7T-10-C-C204 and W15P7T-09-C-S039.**

### ***Army Comments***

The Executive Director, ACC-APG, stated that his office had issued Phase I SBIR contracts W15P7T-10-C-C204 and W15P7T-09-C-S039 for Recovery Act purposes after performing a competitive selection from 15 proposals under the applicable SBIR solicitation. The Executive Director noted that the awards were posted on the Army SBIR public Web site but not posted on FBO because they were competitively awarded and were fixed-price. The Executive Director noted that the award of W15P7T-09-C-S039 was for research and development of a microgroove heat exchanger technology for ammonia heat-actuated cooling applications. The Executive Director also noted that the contract W15P7T-10-C-C204 award was to develop heat-actuated technology capable of providing air-conditioning and heating at high and low ambient temperatures.

### ***Our Response***

The Executive Director's comments were partially responsive to the intent of the recommendation. They included an adequate project description for contracts W15P7T-10-C-C204 and W15P7T-09-C-S039 but did not recognize that all Recovery Act award actions are required by OMB, FAR, and DoD guidance to be posted to the FBO Web site regardless of whether they are competitively awarded or fixed-price. However, because both contracts' period of performance has ended and the summarized results have been posted to [FederalReporting.gov](https://www.federalreporting.gov), we see no reason to pursue this matter. Thus, no additional management comments are required.

**2. Direct the modification of contract W15P7T-10-C-C204 to include all required Recovery Act clauses.**

***Army Comments***

The Executive Director agreed that required Recovery Act FAR clause 52.215-02, “Audit and Records-Negotiation,” should have been included in contract W15P7T-10-C-C204. However, the Executive Director stated that it would be inappropriate to modify the contract to incorporate the clause because the performance was completed on this firm-fixed-price contract. The Executive Director stated that the ACC-APG contracting workforce would be reminded to include all required Recovery Act clauses in future contracts.

***Our Response***

The Executive Director’s comments were responsive to the intent of the recommendation. We confirmed that work had been completed for the subject contract and that adding the clause at this point was unnecessary. No further management comments are required.

## **Appendix A. Scope and Methodology**

We conducted this audit from October 2009 through March 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objectives.

We reviewed ACC-APG, ONR, and AFRL contracting and financial documentation from December 2009 to July 2010. We visited AFRL to review three of the selected projects. We interviewed program and contracting personnel at AFRL. For the remaining three projects, we contacted personnel at APG and ONR to obtain contracting and financial documentation from SBIR program managers, contracting officers, contracting officer's representatives, and various Federal Web sites. We used this supporting documentation to determine whether contract solicitations and awards met Recovery Act and Office of Management and Budget implementation and transparency requirements. We did not review the entire contract files at APG or ONR.

Before selecting DoD Recovery Act projects to audit, the Quantitative Methods and Analysis Division of the DoD Office of Inspector General analyzed all DoD agency-funded projects, locations, and contracting oversight organizations to assess the risk of waste, fraud, and abuse associated with each. We judgmentally selected the six SBIR projects from the list of 22 SBIR and Small Business Technology Transfer projects provided by the Director, Defense Small Business Program. The sample included projects from each Service that were awarded Phase I and Phase II SBIR contracts. Our audit focused on the reporting of contract actions on specific SBIR projects. From these procedures, we concluded that the DoD data were sufficiently reliable for our audit purposes.

### **Use of Computer-Processed Data**

We used computer-processed data to perform this audit. Specifically, we used posted notices on the FBO Web site (<http://www.fedbizopps.gov>) in meeting our audit objectives. We tested the accuracy of the data by comparing the project data reported on the FBO Web site with documents in the contract file. Our audit focused on the reporting of contracts on specific SBIR projects. From these procedures, we concluded that the DoD data were sufficiently reliable for our audit purposes.

### **Prior Coverage**

The Government Accountability Office, the Department of Defense Inspector General, and the Military Departments have issued reports and memoranda discussing DoD projects funded by the Recovery Act. You can access unrestricted reports at <http://www.recovery.gov/accountability>.



## Appendix B. Recovery Act Criteria and Guidance

The following list includes the primary Recovery Act criteria documents (notes appear at the end of the list):

- U.S. House of Representatives Conference Committee Report 111-16, “Making Supplemental Appropriations for Job Preservation and Creation, Infrastructure Investment, Energy Efficiency and Science, Assistance to the Unemployed, and State and Local Fiscal Stabilization, for the Fiscal Year Ending September 30, 2009, and for Other Purposes,” February 12, 2009
- Public Law 111-5, “American Recovery and Reinvestment Act of 2009,” February 17, 2009
- OMB Memorandum M-09-10, “Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” February 18, 2009
- OMB Bulletin No. 09-02, “Budget Execution of the American Recovery and Investment Act of 2009 Appropriations,” February 25, 2009
- White House Memorandum, “Government Contracting,” March 4, 2009
- White House Memorandum, “Ensuring Responsible Spending of Recovery Act Funds,” March 20, 2009
- OMB Memorandum M-09-15, “Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” April 3, 2009<sup>1</sup>
- OMB Memorandum M-09-16, “Interim Guidance Regarding Communications With Registered Lobbyists About Recovery Act Funds,” April 7, 2009
- OMB Memorandum M-09-19, “Guidance on Data Submission under the Federal Funding Accountability and Transparency Act (FFATA),” June 1, 2009
- OMB Memorandum M-09-21, “Implementing Guidance for the Reports on Use of Funds Pursuant to the American Recovery and Reinvestment Act of 2009,” June 22, 2009<sup>2</sup>
- OMB Memorandum M-09-24, “Updated Guidance Regarding Communications with Registered Lobbyists About Recovery Act Funds,” July 24, 2009

- OMB Memorandum M-09-30, “Improving Recovery Act Recipient Reporting,” September 11, 2009
- OMB Office of Federal Procurement Policy, “Interim Guidance on Reviewing Contractor Reports on the Use of Recovery Act Funds in Accordance with FAR Clause 52.204-11,” September 30, 2009<sup>2</sup>
- OMB Memorandum M-10-08, “Updated Guidance on the American Recovery and Reinvestment Act – Data Quality, Non-Reporting Recipients, and Reporting of Job Estimates,” December 18, 2009<sup>2</sup>
- OMB Memorandum M-10-14, “Updated Guidance on the American Recovery and Reinvestment Act,” March 22, 2010<sup>2</sup>
- White House Memorandum, “Combating Noncompliance With Recovery Act Reporting Requirements,” April 6, 2010
- OMB Memorandum M-10-17, “Holding Recipients Accountable for Reporting Compliance under the American Recovery and Reinvestment Act,” May 4, 2010<sup>2</sup>
- OMB Memorandum M-10-34, “Updated Guidance on the American Recovery and Reinvestment Act,” September 24, 2010<sup>2</sup>

## Notes

<sup>1</sup> Document provides Government-wide guidance for carrying out programs and activities enacted in the American Recovery and Reinvestment Act of 2009. The guidance states that the President’s commitment is to ensure that public funds are expended responsibly and in a transparent manner to further job creation, economic recovery, and other purposes of the Recovery Act.

<sup>2</sup> Document provides Federal agencies guidance for carrying out the reporting requirements included in section 1512 of the Recovery Act. The reports will be submitted by recipients beginning in October 2009 and will contain detailed information on the projects and activities funded by the Recovery Act.

# Department of the Army Comments



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND  
9301 CHAPEK ROAD  
FORT BELVOIR, VA 22060-5527

15 APR 2011

AMCIR

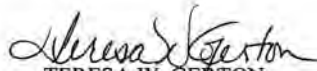
MEMORANDUM FOR Department of Defense Inspector General (DoDIG), ATTN: Mr. Daniel R. Blair, Room 300, 400 Army Navy Drive, Arlington, VA 22202-4704

SUBJECT: Command Reply to Draft Report on American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies Program (Project No. D2009-D000AB-0170.005) (D1107)

1. The U.S. Army Materiel Command (AMC) has reviewed the subject draft report. AMC endorses the enclosed comments on the draft report from the U.S. Army Contracting Command.

2. [REDACTED]

Encl

  
TERESA W. GERTON  
Executive Deputy to the  
Commanding General



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CONTRACTING COMMAND**  
**9301 CHAPEK ROAD**  
**FORT BELVOIR, VA 22060-5527**

AMSCC-IR

APR 20 2011

MEMORANDUM FOR Ms. Susan McCoy, Director, Internal Review and Audit Compliance Office, Headquarters, U.S. Army Materiel Command, 9301 Chapek Road, Fort Belvoir, VA 22060

SUBJECT: American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies Program, (Project No. D2009-D000AB-0170.005) (D1125)

1. References:

a. Memorandum, Army Contracting Command – Aberdeen Proving Ground (APG) [Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance] (C4ISR), 12 April 2011, subject: U.S. Army Contracting Command-Army Contracting Command, Aberdeen Proving Ground reply to Department of Defense Inspector General (DODIG) DRAFT REPORT, American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies Program (Report Number: D2009-D000AB-017.005) (enclosed).

b. Memorandum and Draft Report, Department of Defense Inspector General, 25 March 2011, subject: American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies Program, (Project No. D2009-D000AB-0170.005).

2. After reviewing the referenced documents, the Army Contracting Command (ACC) concurs with the comments from ACC-APG (C4ISR).

3. There are two changes that should be made in the report:

a. The recommendations should be addressed to the Executive Director of the Contracting Center.

b. The name of the contracting center needs to be corrected to reflect its current name: ACC-APG (C4ISR).

Revised

Revised

AMSCC-IR

SUBJECT: American Recovery and Reinvestment Act Small Business Innovation Research  
Projects in the DoD Near Term Energy-Efficient Technologies Program, (Project No. D2009-  
D000AB-0170.005) (D1125)

4. [REDACTED]  
[REDACTED]

Encl

*J.P.*

*Carol E. Inman*

JEFFREY P. PARSONS  
Executive Director



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CONTRACTING COMMAND  
ABERDEEN PROVING GROUND  
8001 COMBAT DRIVE  
ABERDEEN PROVING GROUND, MARYLAND 21005-1848

REPLY TO  
ATTENTION OF

CCCB-CQK-B

12 April 2011

MEMORANDUM FOR Executive Director, US Army Contracting Command, ATTN: AMSCC-IR (Ms. Sonya Moman), 9301 Chapek Road, Fort Belvoir, VA 22060-5527

SUBJECT: U.S. Army Contracting Command-Army Contracting Command, Aberdeen Proving Ground Reply to Department of Defense Inspector General (DODIG) DRAFT REPORT, American Recovery and Reinvestment Act Small Business Innovation Research Projects in the DoD Near Term Energy-Efficient Technologies Program (Report Number: D2009-D000AB-017.005)

1. Command comments on the subject DRAFT report are enclosed.
2. [REDACTED]

Encl

*Bryon Young*  
BRYON YOUNG  
Executive Director

ENCL



**ARMY CONTRACTING COMMAND (ACC)  
ABERDEEN PROVING GROUND (APG) (C4ISR)**

**REPLY TO DODIG DRAFT REPORT No: D2009-D000AB-0170.005  
American Recovery and Investment Act Small Business Innovation Research  
Projects in the DoD Near Term Energy-Efficient Technologies Program**

**REPORT No: D2009-D000AB-0170.005**

**RECOMMENDATIONS FOR THE EXECUTIVE DIRECTOR, ACC-APG**

**DRAFT REPORT RECOMMENDATION No1:** Direct the posting of award notices that included adequate project description for contracts W15P7T-09-C-S039 and W15P7T-10-C-C204.

**COMMAND COMMENTS AND ACTIONS TAKEN**

Concur with the DODIG assessment for the posting of contracts W15P7T-09-C-S039 and W15P7T-10-C-C204. The Army Contracting Command-Aberdeen Proving Ground recognizes that subject contracts were funded by the American Recovery and Reinvestment Act of 2007 and awarded under Phase I of the Small Business Innovation Research (SBIR) program. Fifteen (15) proposals were received under the Topic # A-09-090 SBIR solicitation which closed 17 June 2009. After selection, contracts W15P7T-09-C-S039 and W15P7T-10-C-C204 were awarded. In addition, because the cited contracts were competitively awarded and are fixed-price, pursuant to FAR 5.705(b)(1) (see attachment #1) award notices were not required at the FBO site. The contract awards were posted on the Army SBIR public site at: [www.dodsbir.net](http://www.dodsbir.net).

The award posting stated that contract W15P7T-09-C-S039 was awarded to Energy Concepts Co., LLC in the amount of \$69,975.00 on 9/10/2009. The contract provided research and development services to develop a microgroove heat exchanger technology for ammonia heat actuated cooling applications. The award posting for contract W15P7T-10-C-C204 stated that the contract was awarded to Rocky Research in the amount of \$67,730.01 on 12/23/2009. This contract developed heat actuated cooling technology capable of providing air conditioning and heating at high and low ambient temperatures. Both actions were awarded in response to Topic Number A09-090 under the DoD SBIR program.

Copies of the award notices are provided in the attachment and included an abstract of the project descriptions. (See attachments #2 and #3).

Not included due to  
length

**DRAFT REPORT RECOMMENDATION No 2:** Direct the modification of contract W15P7T-10-C-C204 to include all required Recovery Act clauses.

**COMMAND COMMENTS AND ACTIONS TAKEN**

We concur that clause 52.215-02 should have been included in contract W15P7T-10-C-C204. From our further review, the period of performance of contract W15P7T-10-C-C204 ended June 2010. As it was a firm, fixed price contract, final payment undoubtedly has been made. Consequently the contract has expired and it would be inappropriate to modify the contract to include the clause at this point. Alternatively, ACC-APG will remind our contracting workforce that all clauses required by ARRA are to be included in future contracts.

**Attachments:**

1. FAR 5.705(b)(1)
2. DoD SBIR Award Posting- W15P7T-09-C-S039
3. DoD SBIR Award Posting- W15P7T-10-C-C204

Attachments 1-3  
not included due to  
length

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# Inspector General Department of Defense

